Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Report on the Feasibility of Allowing Commercial Wireless Services, Licensed or Unlicensed, To Use or Share Use of the Frequencies Between 3.7-4.2 GHz	)	GN Docket No. 18-122

COMMENTS OF VERIZON

The 3.7-4.2 GHz band offers particular promise to provide vital spectrum to fuel 5G. As Verizon detailed in its comments and reply comments[1] on the Commission's Mid-Band Spectrum Notice of Inquiry,[2] the 3.7-4.2 GHz band contains more bandwidth than the Cellular, PCS, AWS-1, AWS-3, 600 MHz, and 700 MHz bands combined and is likely to be globally harmonized for mobile broadband. The U.S. telecommunications industry is in a global race to lead the world in 5G. The United States, however, is facing a mid-band spectrum deficit that could ultimately slow 5G deployment, particularly beyond dense urban areas. While the Commission must consider how to accommodate incumbent operations in the band, the promise of the 3.7 GHz band for 5G far outweighs the challenges of adding a new terrestrial mobile allocation to the band. As a result, the Commission should move quickly to find that it is not only feasible, but critical, to allow licensed commercial wireless use of the 3.7-4.2 band.

Currently, both the Fixed Satellite Service (FSS) and the terrestrial Fixed Service (FS) use the band, though neither—either on its own or collectively with the other—appears to fully

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[1] Comments of Verizon, GN Docket No. 17-183 (filed Oct. 2, 2017) ("Comments"); Reply Comments of Verizon, GN Docket No. 17-183 (filed Nov. 15, 2017) ("Reply Comments").

[2] *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Inquiry, 32 FCC Rcd 6373 (2017) ("*Mid-Band Spectrum NOI*").

use the band.[3] At the time the *Mid-Band Spectrum NOI* was released, there were 4,700 registered FSS users, many of which appeared not to exist.[4] Verizon and others urged the Commission to clean up its licensing records by requiring that all C-band FSS operators review their own IBFS registrations and certify their accuracy.[5] With its recent public notice freezing new applications and inviting earth station operators to come forward and register their stations in order to be protected,[6] the Commission has taken partial steps toward obtaining an accurate and comprehensive understanding the FSS landscape. But the Commission should compel "operators of existing registered or licensed FSS earth stations to update records where an earth station no longer exists or is no longer in use" rather than "invite," as it did in the Public Notice.[7]

The United States can no longer afford the luxury of inefficient licensing of this band in this spectrum-constrained world and in the context of the global race to 5G. FS use of the band has decreased substantially over time so that only 119 licensees remain. Given the importance of this band for mobile broadband as even an incumbent with a significant number of satellites has acknowledged,[8] there is no reason to expand terrestrial fixed use of the band as the Broadband Access Coalition has previously recommended.[9] While the Commission should consider

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[3] Comments at 11-14; Reply Comments at 4-7.

[4] *Mid-Band Spectrum NOI* ¶ 14.

[5] Reply Comments at 5; Comments of Google, GN Docket No. 17-183 (filed Oct. 2, 2017) at 5.

[6] *See Temporary Freeze on Applications for New or Modified Fixed Satellite Earth Stations and Fixed Microwave Stations in the 3.7-4.2 GHz Band*; *90-Day Window To File Applications for Earth Stations Currently Operating in 3.7-4.2 GHz Band*, Public Notice, DA 18-398 (Apr. 19, 2018) ("Public Notice").

[7] *Id.* at 5.

[8] *See*, *e.g.*, Joint Comments of Intelsat and Intel, GN Docket No. 17-183, at 1 (filed Oct. 2, 2017) (acknowledging that "the propagation characteristics as well as global 5G development plans make the 3700-4200 MHz band highly valuable and attractive for terrestrial mobile use.").

[9] *See* Broadband Access Coalition, *Petition for Rulemaking to Amend and Modernize Parts 25 and 101 of the Commission's Rules to Authorize and Facilitate the Deployment of Licensed*

reasonable accommodations for incumbent operations that remain relevant, the Commission should seek the highest and best use of the 3.7-4.2 GHz band, which is mobile broadband.

The fundamental challenge of permitting mobile operations in the 3.7-4.2 GHz band is how to avoid having terrestrial mobile broadband operations interfere with incumbent operations.[10] The simplest and best solution would be for the Commission to adopt an approach that provides market-based incentives for the satellite and FS incumbents to relocate their traffic in this band. This could include repacking satellite incumbents to a much smaller portion of the band and providing incentives for both satellite and fixed service incumbents to move to fiber or other frequencies, such as the Ku-band for satellite or other mid-band FS spectrum for microwave. Intelsat and SES have offered one such market-based approach to permitting mobile operations in the band.[11] The Commission clearly should explore this and other proposals to move this spectrum to its highest and best use.

In times of great need for additional flexible use spectrum in the global race to 5G, the Commission has worked to find necessary resources to meet consumer demand. The Commission should continue to address that need with the 3.7-4.2 GHz band, which is ideally suited to meet today's demand.[12] The Commission should move quickly to find that it is feasible to allow licensed commercial wireless use of this band and to adopt a notice of proposed rulemaking exploring how to accommodate this use.

Point-to-Multipoint Fixed Wireless Broadband Service in the 3700-4200 MHz Band, RM-11791 (filed June 21, 2017).

[10] Comments at 15-20; Reply Comments at 8-13.

[11] *See* Letter from Karis A. Hastings, Counsel for SES Americom, Inc., to Marlene H. Dortch, FCC, GN Docket No. 17-183, at Attachment: The Secondary Market C-Band Proposal (filed Feb. 9, 2018).

[12] Comments at 8-11, 13-14; Reply Comments at 1-3.

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Respectfully submitted,

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William H. Johnson
Of Counsel

Gregory M. Romano
Charla M. Rath
Catherine M. Hilke
1300 I Street, NW
Suite 500 East
Washington, DC 20005
(202) 515-2438

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